



DT06 Rec'd PCT/PTO

13 AUG 2002

PATENTS

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Liang et al.

Serial No. 10/070,560

Filed: March 8, 2002

For: Method of Producing and Purifying  
Endostatin Protein)  
)  
)  
) Art Unit: Not Yet Assigned  
)  
) Examiner: Not Yet Assigned  
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**SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT**

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Assistant Commissioner for Patents  
Washington, DC 20231

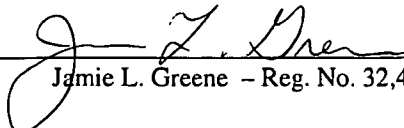
Sir:

The citation of information on the attached Form PTO/SB/08 is made pursuant to 37 C.F.R. §§ 1.56, 1.97, and 1.98. A copy of each cited item is enclosed.

This Supplemental Information Disclosure Statement is being filed before the mailing of the first Office Action on the merits (37 C.F.R. 1.97(b)(3)); therefore, no fee is believed to be required. However, if a first Office Action on the merits has issued, please consider this Information Disclosure Statement under 37 C.F.R. 1.97(c). The Commissioner is hereby authorized to charge the applicable fees, if any, to Deposit Account No. 11-0855.

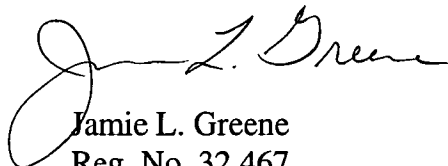
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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, Washington, DC 20231, on August 08, 2002

  
Jamie L. Greene - Reg. No. 32,467

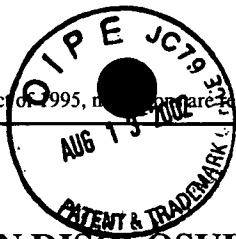
The citation of this information does not constitute an admission of priority or that any cited item is available as a reference, or a waiver of any right the applicant may have under applicable statutes, Rules of Practice in patent cases, or otherwise.

Respectfully submitted,



Jamie L. Greene  
Reg. No. 32,467

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Atlanta, Georgia 30309-4530  
(404) 815-6500  
Our Docket: 05213-0551US (43170-258385)



Substitute for Form 1449/A/PTO

# **INFORMATION DISCLOSURE STATEMENT BY APPLICANT**

(use as many sheets as necessary)

**Complete if Known**

Application No.	10/070,560
Filing Date	03/08/2002
First Named Inventor	Liang et al.
Group Art Unit	Not Yet Assigned
Examiner Name	Not Yet Assigned
Attorney Docket Number	05213-0551US (43170-258385)

Sheet	1	of	7
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**U.S. PATENT DOCUMENTS**

Examiner Initials	Cite No. <sup>1</sup>	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number <sup>4</sup>	Kind Code <sup>5</sup> (if known)			
	1	60/80728		MIXSON, James A.	06/27/2000	

**Examiner  
Signature**

Shulamith H. Shafer

Digitally signed by Shulamith H. Shafer  
DN: cn=Shulamith H. Shafer, c=US, o=USPTO, ou=AU 1647,  
email=shulamith.shafer@uspto.gov  
Date: 2007.11.12 07:38:59 -0500

**Date  
Considered**

11/12/2007

<sup>1</sup>Unique citation designation number. <sup>2</sup>See attached Kinds of U.S. Patent Documents. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent document, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language translation is attached.

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				First Named Inventor	Liang et al.
				Group Art Unit	Not Yet Assigned
				Examiner Name	Not Yet Assigned
Sheet	2	of	7	Attorney Docket Number	05213-0551US (43170-258385)
<b>OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS</b>					
Examiner Initials	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published			T <sup>2</sup>
/SHS/	2	<b>Author:</b> Title: Chapter 12: Vectors for Gene Therapy <b>Publ:</b> Current Protocols in Human Genetics Vol/Iss: Pages: Date: 1997			
	3	<b>Author:</b> BOUSSIF, O. et al. Title: A versatile vector for gene and oligonucleotide transfer into cells in culture and <i>in vivo</i> : Polyethylenimine <b>Publ:</b> Proc. Natl. Acad. Sci. USA Vol/Iss: 92 Pages: 7297-7301 Date: 08/1995			
	4	<b>Author:</b> CALOS, MICHELE P. Title: The potential of extrachromosomal replicating vectors for gene therapy <b>Publ:</b> TIG Vol/Iss: 12 (11) Pages: 463-466 Date: 11/1996			
	5	<b>Author:</b> CHEN, P. et al. Title: Genetic Mechanisms of Tumor Suppression by the Human p53 Gene <b>Publ:</b> Science Vol/Iss: 250 Pages: 1576-1579 Date: 12/1990			
	6	<b>Author:</b> CHENG, PI-WAN Title: Receptor Ligand-Facilitated Gene Transfer: Enhancement of Liposome-Mediated Gene Transfer and Expression by Transferrin <b>Publ:</b> Human Gene Therapy Vol/Iss: 7 Pages: 275-282 Date: 02/10/199			
	7	<b>Author:</b> CLAPP, C. et al. Title: The 16-kilodalton N-terminal Fragment Of Human Prolactin Is A Potent Inhibitor Of Angiogenesis <b>Publ:</b> Endocrinology Vol/Iss: 133 Pages: 1292-1299 Date: 03/01/93			
↓	8	<b>Author:</b> DAMERON, K.M. et al. Title: Control of Angiogenesis in Fibroblasts by p53 Regulation of Thrombospondin-1 <b>Publ:</b> Science Vol/Iss: 265 Pages: 1582-1584 Date: 09/09/94			

Examiner Signature	Shulamith H. Shafer <small>Digitally signed by Shulamith H. Shafer DN: cn=Shulamith H. Shafer, c=US, o=USPTO, ou=AU 1647, email=shulamith.shafer@uspto.gov Date: 2007.11.12 07:29:37 -0500</small>	Date Considered	11/12/2007
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				Application No.	10/070,560	
				Filing Date	03/08/2002	
				First Named Inventor	Liang et al.	
				Group Art Unit	Not Yet Assigned	
				Examiner Name	Not Yet Assigned	
Sheet	3	of	7	Attorney Docket Number		05213-0551US (43170-258385)
OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS						
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/SHS/	9	Author: DARDIK, R. et al      Title: The structure of endothelial cell thrombospondin - Characterization of the heparin-binding domains Publ: Eur J Biochem Vol/Iss: 168 (2)      Pages: 347-355      Date: 10/15/198				
	10	Author: DEBS, R.J, et al.      Title: Regulation of Gene Expression <i>in Vivo</i> by Liposome-mediated Delivery of a Purified Transcription Factor Publ: The Journal of Biological Chemistry Vol/Iss: 265 (18)      Pages: 10189-10192      Date: 06/25/199				
	11	Author: DIXIT, V.M. et al.      Title: A monoclonal antibody against human thrombospondin inhibits platelet aggregation Publ: Proc. Natl. Acad. Sci. USA Vol/Iss: 82      Pages: 3472-3476      Date: 05/1985				
	12	Author: FAN et al.      Title: Controlling the vasculature: angiogenesis, anti-angiogenesis and vascular targeting of gene therapy Publ: Trends in Pharmacolical Sciences Vol/Iss: 16 (2)      Pages: 57-66      Date: 02/95				
	13	Author: FIDLER et al.      Title: The Implications of Angiogenesis for the Biology and Therapy of Cancer Metastasis Publ: Cell Vol/Iss: 79(2)      Pages: 185-188      Date: 10/21/94				
	14	Author: FUJIWARA, T. et al.      Title: Induction of Chemosensitivity in Human Lung Caner Cells <i>in Vivo</i> by Adenovirus-mediated Transfer of the Wild-Type <i>p53</i> Gene Publ: Cancer Research Vol/Iss: 54      Pages: 2287-2291      Date: 05/01/199				
	15	Author: GOLDMAN, C.K. et al.      Title: In vitro and in vivo gene delivery mediated by a synthetic polycationic amino polymer Publ: Nature Biotechnology Vol/Iss: 15      Pages: 462-466      Date: 05/1997				

Examiner Signature	Shulamith H. Shafer <small>Digitally signed by Shulamith H. Shafer DN: cn=Shulamith H. Shafer, c=US, o=USPTO, ou=AU 1647, email=shulamith.shafer@uspto.gov Date: 2007.11.12 07:40:15 -0500</small>	Date Considered	11/12/2007
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Substitute for Form 1449/A/PTO

**INFORMATION DISCLOSURE  
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(use as many sheets as necessary)

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Application No.	10/070,560
Filing Date	03/08/2002
First Named Inventor	Liang et al.
Group Art Unit	Not Yet Assigned
Examiner Name	Not Yet Assigned
Attorney Docket Number	05213-0551US (43170-258385)

Sheet 4 of 7

**OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS**

Examiner Initials	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>4</sup>
/SHS/	16	<b>Author:</b> HAWKINS, MICHAEL J, M.D. <b>Title:</b> Clinical trials of antiangiogenic agents <b>Publ:</b> <u>Current Opinion in Oncology</u> <b>Vol/Iss:</b> 7 <b>Pages:</b> 90-93 <b>Date:</b> 1995	
	17	<b>Author:</b> KING, RALPH P. Jr. <b>Title:</b> Novel Cancer Approach From Noted Scientist Hits Stumbling Block <b>Publ:</b> <u>Wall Street Journal</u> <b>Vol/Iss:</b> <b>Pages:</b> A1, A8 <b>Date:</b> 11/12/199	
	18	<b>Author:</b> KOSFELD, M.D. et al. <b>Title:</b> Identification of a New Cell Adhesion Motif in Two Homologous Peptides from the COOH-terminal Cell Binding Domain on Human Thrombospondin <b>Publ:</b> <u>The Journal of Biological Chemistry</u> <b>Vol/Iss:</b> 268 (12) <b>Pages:</b> 8808-8814 <b>Date:</b> 1993	
	19	<b>Author:</b> LESOON-WOOD, L.A. et al. <b>Title:</b> Systemic Gene Therapy with p53 Reduces Growth and Metastases of a Malignant Human Breast Tumor in Nude Mice <b>Publ:</b> <u>Human Gene Therapy</u> <b>Vol/Iss:</b> 6 <b>Pages:</b> 395-405 <b>Date:</b> 04/1995	
	20	<b>Author:</b> MAIONE, T.E. et al. <b>Title:</b> Inhibition of Tumor Growth in Mice by an Analogue of Platelet Factor 4 That Lacks Affinity for Heparin and Retains Potent Angiostatic Activity <b>Publ:</b> <u>Cancer Research</u> <b>Vol/Iss:</b> 51 <b>Pages:</b> 2077-2083 <b>Date:</b> 04/15/199	
	21	<b>Author:</b> MARSHALL, ELIOT <b>Title:</b> Gene Therapy's Growing Pains <b>Publ:</b> <u>Science</u> <b>Vol/Iss:</b> 269 <b>Pages:</b> 1050-1055 <b>Date:</b> 08/25/199	
↓	22	<b>Author:</b> MILLAUER, B. et al. <b>Title:</b> Glioblastoma growth inhibited <i>in vivo</i> by a dominant-negative Flk-1 mutant <b>Publ:</b> <u>Nature</u> <b>Vol/Iss:</b> 367 <b>Pages:</b> 576-579 <b>Date:</b> 02/10/94	

Examiner  
Signature

Shulamith H. Shafer

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 DN: cn=Shulamith H. Shafer, o=US, ou=USPTO, ou=AU 1647,  
 email=shulamith.shafer@uspto.gov  
 Date: 2007.11.12 07:40:57 -0500
Date  
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<sup>1</sup>Unique citation designation number. <sup>2</sup>See attached Kinds of U.S. Patent Documents. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent document, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language translation is attached.

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/SHS	23	Author: O'REILLY et al. Title: Angiostatin: A Novel Angiogenesis Inhibitor that Mediates the Suppression of Metastases by a Lewis Lung Carcinoma Publ: Vol/Iss: 79 Pages: 315-328 Date: 10/21/94 Cell			
	24	Author: O'REILLY et al. Title: Endostatin: An Endogenous Inhibitor of Angiogenesis and Tumor Growth Publ: Vol/Iss: 88 Pages: 277-285 Date: 01/24/97 Cell			
	25	Author: PARK et al. Title: Development of liposome- and anti-HER2 immunoliposomeplasmid complexes for efficient and selective gene therapy Publ: Proceedings of the American Association for Cancer Research Vol/Iss: 38 Pages: 342 Date: 03/1997			
	26	Author: PASQUALINI, R. et al. Title: $\alpha$ v Integrins as receptors for tumor targeting by circulating ligands Publ: Nature Biotechnology Vol/Iss: 15 Pages: 542-546 Date: 06/1997			
	27	Author: PASQUALINI, R. et al. Title: Organ targeting <i>in vivo</i> using phage display peptide libraries Publ: Nature Vol/Iss: 380 Pages: 364-166 Date: 03/28/199			
	28	Author: SAIKI et al. Title: Inhibition of Tumor Angiogenesis by a Synthetic Cell-adhesive Polypeptide Containing the Arg-Gly-Asp (RGD) Sequence of Fibronectin, Poly(RGD) Publ: Jpn. J. Cancer Research Vol/Iss: 81 Pages: 668-675 Date: 1990			
	29	Author: SAKAMOTO, N. et al. Title: Inhibition of Angiogenesis And Tumor Growth By A Synthetic Laminin Peptide. Cdpgyigr-nh2 Publ: Cancer Research Vol/Iss: 51 Pages: 903-906 Date: 02/01/91			

Examiner Signature	Shulamith H. Shafer <small>Digitally signed by Shulamith H. Shafer DN: cn=Shulamith H. Shafer, c=US, o=USPTO, ou=AU 1647, email=shulamith.shafer@uspto.gov Date: 2007.11.12 07:41:30 -0500</small>	Date Considered	11/12/2007
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/SHS/	30	Author: SHEIKH et al. Title: Overexpression of p21WAF1/CIP1 induces growth arrest, giant cell formation and apoptosis in human breast carcinoma cell lines Publ: Oncogene Vol/Iss: 11 Pages: 1899-1905 Date: 1995			
	31	Author: TANAKA, T. et al. Title: Viral vector-mediated transductions of a modified platelet factor 3 cDNA inhibits angiogenesis and tumor growth Publ: Nature Medicine Vol/Iss: 3 Pages: 437-442 Date: 04/1997			
	32	Author: TOLSMA, S.S. et al. Title: Peptides Derived From Two Separate Domains Of The Matrix Protein Thrombospondin-1 Have Antiangiogenic Activity Publ: Journal of Cell Biology Vol/Iss: 122 Pages: 497-511 Date: 07/1993			
	33	Author: WEINSTAT-SASLOW, D.L. et al. Title: Transfection of Thrombospondin 1 Complementary DNA into a Human Breast Carcinoma Cell Line Reduces Primary Tumor Growth, Metastatic Potential, and Angiogenesis Publ: Cancer Research Vol/Iss: 54 Pages: 6504-6511 Date: 1994			
	34	Author: XU, M. et al. Title: In Vivo Gene Therapy with a Cationic Polymer Markedly Enhances the Antitumor Activity of Antiangiogenic Genes Publ: Molecular Genetics and Metabolism Vol/Iss: 64 Pages: 001-005 Date: 1998			
	35	Author: XU, M. et al. Title: Gene Therapy with P53 and a Fragment of Thrombospondin I Inhibits Human Breast Cancer <i>in Vivo</i> Publ: Molecular Genetics and Metabolism Vol/Iss: 63 Pages: 103-109 Date: 1998			
↓	36	Author: XU, M. et al. Title: Parenteral Gene Therapy with p53 Inhibits Human Breast Tumors <i>In Vivo</i> Through a Bystander Mechanism Without Evidence of Toxicity Publ: Human Gene Therapy Vol/Iss: 8 Pages: 177-185 Date: 01/20/1999			

Examiner Signature	Shulamith H. Shafer	Date Considered	11/12/2007
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/SHS/	37	Author: ZABRENETZKY, V. et al. Title: EXPRESSION OF THE EXTRACELLULAR MATRIX MOLECULE THROMBOSPONDIN INVERSELY CORRELATES WITH MALIGNANT PROGRESSION IN MELANOMA CELL LINE AND BREAST CARCINOMA CELL Publ: Int. J. Cancer Vol/Iss: 59 Pages: 191-195 Date: 1994				
/SHS/	38	Author: ZHU, N. et al. Title: Systemic Gene Expression After Intravenous DNA Delivery into Adult Mice Publ: Science Vol/Iss: 261 Pages: 209-211 Date: 07/09/199				

Examiner Signature	Shulamith H. Shafer	Date Considered	11/02/2007
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